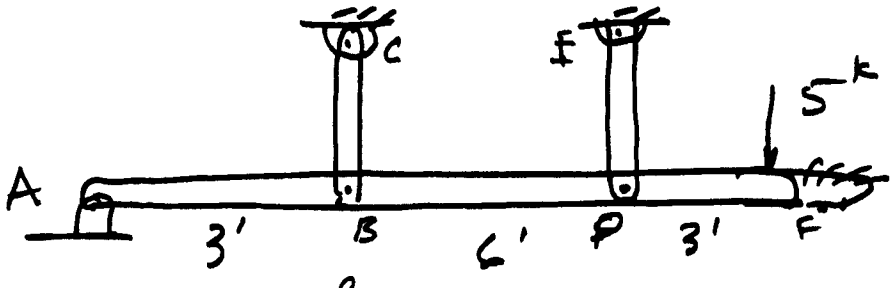
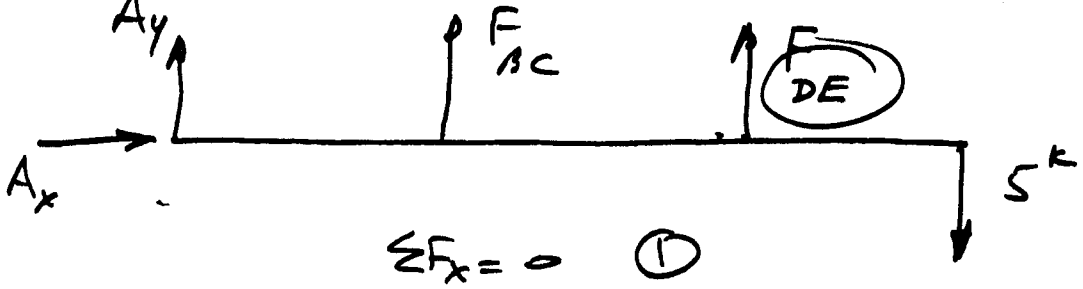


Aluminum hangers $E = 10 \times 10^3$ ksi

same area for both hangers

determine

The force in each hanger



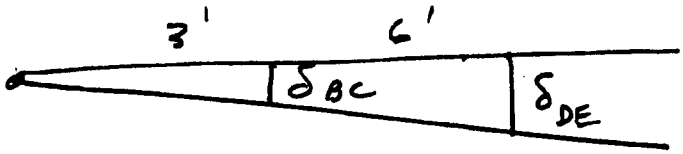
$\Sigma F_x = 0$ (1)

(1) $A_x = 0$

(2) $\Sigma M_A = -(F_{BC})(3) - (F_{DE})(9) + 5 \times 12 = 0$

$\Sigma M_F = 0$

(3) $-(A_y)(12) - F_{BC} \cdot 9 - F_{DE}(3) = 0$



$$\frac{\delta_{DE}}{9} = \frac{\delta_{BC}}{3} \quad \therefore \quad \delta_{DE} = 3\delta_{BC}$$

$$\frac{F_{DE} \times L}{AE} = \frac{3F_{BC}L}{AE} \quad \therefore F_{DE} = 3F_{BC}$$

from eq. (2) $+3F_{BC} + 9(3F_{BC}) = 60 \quad \therefore F_{BC} = 2^k \uparrow$

and $F_{DE} = (3)(2) = 6^k \uparrow$

$A_y = -3^k \uparrow \quad A_x = 0$